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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.														
10/003,190	10/29/2001	Kousei Sano	MTS-2530US1	6251														
7590 Ratner and Prestia Suite 301 One Westlakes, Berwyn P.O. Box 980 Valley Forge, PA 19482-0980		07/11/2007	<table border="1"><tr><td colspan="2">EXAMINER</td></tr><tr><td colspan="2">HARRINGTON, ALICIA M</td></tr><tr><td>ART UNIT</td><td>PAPER NUMBER</td></tr><tr><td>2873</td><td></td></tr><tr><td colspan="2"><table border="1"><tr><td>MAIL DATE</td><td>DELIVERY MODE</td></tr><tr><td>07/11/2007</td><td>PAPER</td></tr></table></td></tr></table>		EXAMINER		HARRINGTON, ALICIA M		ART UNIT	PAPER NUMBER	2873		<table border="1"><tr><td>MAIL DATE</td><td>DELIVERY MODE</td></tr><tr><td>07/11/2007</td><td>PAPER</td></tr></table>		MAIL DATE	DELIVERY MODE	07/11/2007	PAPER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/003,190

Applicant(s)

SANO ET AL.

Examiner

Alicia M. Harrington

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9, 11-21, 24 and 26 is/are pending in the application.
- 4a) Of the above claim(s) 21 and 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9, 11-20 and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. The Examiner has carefully reviewed the elected claims 9,11-21. The Examiner realizes that claim 21 is broader version of claim 24 and thus should be examined with claim 24. Since claim 24 is a non-elected group, claim 21 is further withdrawn from consideration. Thus the restriction has been updated to the following:

Restriction to one of the following inventions is required under 35 U.S.C. 121"

- I. Claims 9-20 are, drawn to an aperture lens, classified in class 359, subclass 738.
- II. Claims 21 and 24 are, drawn to an optical system for a position detector, classified in class 369, subclass 44.41.

2. In response to this office action, applicant must acknowledge (with traverse or non traverse) the withdrawal of claim 21 from the elected invention.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim12 is rejected under 35 U.S.C. 102(b) as being anticipated by Debesis (USN 4940308).

Regarding claim 12, Debesis discloses a aperture provided lens comprising aperture having a first opening (48) and a second opening (42) corresponding to the body of the lens (38), wherein a diffraction device (see col. 2 and col. 3) is provided for at least one

of said openings (44), a second diffraction device (on 46) is set in a region other than said first opening and said second opening, and the percentage of the luminous energy penetrating without being diffracted by the second diffraction device is 5 percent or less (see col. 3, lines 10-22).

5. A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 9-11,15,18,19 are rejected under 35 U.S.C. 102(e) as being anticipated by Komma et al (US 5,815,293).

Regarding claim 9, Komma discloses an aperture provided lens comprising an aperture having a first opening and a second opening correspondingly to the body of a lens (33), wherein a diffraction device is provided for at least one of said openings (see figure 15; col. 34, lines 57-67 and col. 35, lines 1-22; 32A (central 32 and peripheral 33a-33d or 33a and 33d- where a first opening doesn't include the central the axis and second opening is axial symmetric to the first opening).

Regarding claim 10, Komma discloses the aperture-provided lens according to claim 9, wherein said second opening is larger than said first opening (see figure 15a).

Regarding claim 11, Komma discloses the aperture-provided lens according to claim 10, wherein said first opening has diffraction device, the direction in which light is diffracted by said diffraction device is assumed as a first direction, the direction perpendicular to said first direction in the plane of said first opening is assumed as a second direction, and the length corresponding to said first direction of said second opening is larger than the length corresponding to said second direction of said second opening- a length across the circumference grating region.

Regarding claim 15, see col. 34,57-67 and col. 35, lines 1-22.

Regarding claim 18, see figure 15A-15C.

Regarding claim 19, see figure 15.

7. Claims 9,10,13,14,16-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Mukai et al (US 5,995,286).

Regarding claims 9 and 18, Mukai discloses an aperture provided lens comprising an aperture having a first opening and a second opening correspondingly to the body of a lens, wherein a diffraction device is provided for at least one of said openings (see figure 2,9,10-central and peripheral regions) wherein the first opening does not include a central axis of the lens and the second opening is on the same plane and axial symmetric (for example see figure 10- first opening-region3 and second opening central).

Regarding claim 10, Mukai discloses the aperture-provided lens according to claim 9, wherein said second opening is larger than said first opening (for example central and peripheral regions).

Regarding claim 13, see figure 10.

Regarding claim 14, the peripheral region has a smaller grating interval.

Regarding claim 16, the peripheral and central regions each have a flat part. The normal of the flat part are not parallel to each. For example, the flat part of region 2 of figure 10 is on the top surface of the triangle.

Regarding claim 17, the peripheral region has a greater pitch/interval than the center-
see col. 9

Regarding claim 19, see figure 10.


Regarding claim 20, Mukai discloses the aperture-provided lens according to claim 19, wherein said aperture-provided lens is made of resin.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Harrington whose telephone number is 571 272 2330. The examiner can normally be reached on Monday - Friday 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571 272 2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Alicia M Harrington
Primary Examiner
Art Unit 2873

Amh